

## Barton County

### Estimated Economic Contribution of Agriculture, Food, and Food Processing Sectors

6/25/2019

Using the most recent IMPLAN data available (2017) adjusted for 2019, 18 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Barton County economy.<sup>1</sup>

These 18 sectors have a total direct output of approximately **\$993.5 million** and support **2,022 jobs** in Barton County. Running the model for all 18 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Barton County Economy					
Contribution Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>
<b>Direct Effect</b>	2021.7	10.05%	\$192,644,336	13.85%	\$933,513,336
<b>Indirect Effect</b>	806.5	4.01%	\$71,524,758	5.14%	\$134,739,432
<b>Induced Effect</b>	611.3	3.04%	\$37,063,340	2.67%	\$70,836,171
<b>Total Effect</b>	3439.5	17.10%	\$301,232,434	21.66%	\$1,139,088,940

As shown in the above table, agriculture, food, and food processing sectors support **3,440 jobs**, or **17.10%** of the entire workforce in the county.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 18 agriculture, food, and food processing sectors is approximately **\$301.2 million**, or **21.66% of the GRP**.

The following tables document the top industries affected by employment and output, as well as a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

<https://implanhelp.zendesk.com/hc/en-us/articles/115002801513-Considerations-of-Contribution-Analysis>

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **627 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Barton County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	627.0	\$172,239,536
Support activities for agriculture and forestry	366.7	\$10,609,684
Dog and cat food manufacturing	360.7	\$448,125,891
Animal, except poultry, slaughtering	246.5	\$163,547,983
Wholesale trade	156.4	\$33,088,771
Truck transportation	142.9	\$25,016,508
Landscape and horticultural services	115.4	\$5,705,808
Real estate	97.7	\$13,791,481
Animal production, except cattle and poultry and eggs	87.7	\$20,369,254
Grain farming	72.0	\$57,768,883

The dog and cat food manufacturing sector directly contributes approximately **\$448.1 million** to the Barton County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Dog and cat food manufacturing	360.7	\$448,125,891
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	627.0	\$172,239,536
Animal, except poultry, slaughtering	246.5	\$163,547,983
Grain farming	72.0	\$57,768,883
Wholesale trade	156.4	\$33,088,771
Truck transportation	142.9	\$25,016,508
Animal production, except cattle and poultry and eggs	87.7	\$20,369,254
Other animal food manufacturing	14.6	\$18,728,787
Oilseed farming	7.9	\$17,486,887
Real estate	97.7	\$13,791,481

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Barton County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	7.9	\$17,486,886.98
Grain farming	72.0	\$57,768,882.75
Vegetable and melon farming	0.2	\$52,048.07
Fruit farming	0.8	\$75,734.47
Greenhouse, nursery, and floriculture production	2.2	\$337,561.13
All other crop farming	21.9	\$3,660,992.86
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	627.0	\$172,239,532.47
Dairy cattle and milk production	12.7	\$6,124,930.86
Poultry and egg production	0.5	\$553,503.69
Animal production, except cattle and poultry and eggs	87.7	\$20,369,253.16
Support activities for agriculture and forestry	366.7	\$10,609,683.99
Dog and cat food manufacturing	360.7	\$448,125,823.97
Other animal food manufacturing	15.2	\$18,728,786.47
Animal, except poultry, slaughtering	245.5	\$162,870,147.71
Bread and bakery product, except frozen, manufacturing	16.0	\$1,896,541.71
Frozen cakes and other pastries manufacturing	1.0	\$154,979.68
Veterinary services	68.9	\$6,752,172.47
Landscape and horticultural services	115.4	\$5,705,808.16

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Barton County, the retail sector was omitted.